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|------------------------------|-------------|----------------------|---------------------|------------------|
| 10/082,024 | 02/21/2002 | Chung-Ju Hsieh | TS00-903 | 1910 |
| 28112 | 7590 | 01/05/2004 | EXAMINER | |
| GEORGE O. SAILE & ASSOCIATES | | | NOLAND, THOMAS | |
| 28 DAVIS AVENUE | | | ART UNIT | |
| POUGHKEEPSIE, NY 12603 | | | PAPER NUMBER | |

2856

DATE MAILED: 01/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/082,024

Applicant(s)

HSIEH ET AL.

Examiner

Thomas P. Noland

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-- Th MAILING DATE of this communication appears on the cov r sh et with the correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 22-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-21 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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1. Applicant's election with traverse of group 1, claims 1-21 in Paper No. 6, filed Oct. 10, 2003 is acknowledged. The traversal is on the ground(s) that the search for both groups despite different classification would be coextensive because of the related subject matter and that examiner's arguments that group 2 could be practiced without the specifics of group 1 was speculative despite such specifics not being claimed in group 2. This is not found persuasive because of the reasons advanced in the original acquirement which show that the examiner had reasonable basis for believing there would be a burden in searching for both groups despite some related subject matter because of the difference in the subject matters claimed.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 22-31 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Applicant timely traversed the restriction (election) requirement in Paper No. 6.

3. Applicant is requested to cancel claims 22-31 in any response hereto.

4. The drawings are objected to because in Figs. 2 each of box elements 150a-150c should be labeled --Flow meter---. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner

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has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

6. Claim 17 is objected to because of the following informalities: in claim 17, line 3 --- milligram --- should be one word. Appropriate correction is required.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is no antecedent for "said flow of said second helium thorough said manifold" in claim 9.

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-2 and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Bang et al US 5,948,958.

Note abstract, Figs. 1A-3, vol. 4, lines 39-55 and col. 5, line 27-col. 7, line 57 especially.

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 3-7, 10-12 and 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bang et al.

Bang et al does not disclose the specifics of these claims but such are believed to be typical magnitudes and/or elements in such systems and would thus have been obvious to have been used in a system similar to that of Bang et al in view of the intended use therein and their known utilities.

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited references show calibration and/or flow control systems for thin film vaporization systems or other semiconductor processing systems.

14. Lee et al US 2003/0196680, not prior art, discloses a process module for a thin film vaporization system but does not claim a method of self-calibrating and testing the vaporized flow of a liquid precursor in such a system with a set of timing and other steps like that of claim 1.

15. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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16. Claim 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Noland whose telephone number is (703) 305-4765. Beginning January 26, 2004 telephone number (571) 272-2202 should be used. The examiner can normally be reached on weekdays from 9:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Hezron E. Williams, can be reached on (703) 305-4705. Beginning Jan. 26, 2004 his telephone number will be (571) 272-2208.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

1/4/04
Thomas P. Noland
Primary Examiner
Art Unit 2856



T NOLAND/pj
12/31/03